



Contents lists available at ScienceDirect

Geoforum

journal homepage: [www.elsevier.com/locate/geoforum](http://www.elsevier.com/locate/geoforum)

# Mining towns, enclaves and spaces: A genealogy of worker camps in the Congolese copperbelt

Benjamin Rubbers

FASS (B31), Université de Liège, Place des orateurs, 3, 4000 Liège, Belgium

## ARTICLE INFO

### Keywords:

Housing  
Enclave  
Mining  
Katanga  
Congo  
Africa

## ABSTRACT

At the dawn of the recent mining boom, James Ferguson has forcefully argued that new investors in Africa develop a new capital-intensive mode of production within securitized enclaves, breaking with the tradition of providing housing and social infrastructure to workers characteristic of large corporations in the 20th century. This article aims to provide a more detailed analysis of changes in mining companies' spatial government practices by retracing the genealogy of workers' camps in the Congolese copperbelt from the early 20th century to the present day. Based on archival and ethnographic research, the article draws attention to transformations in the camps' architecture and the political rationalities underlying them. What this historical exploration shows is less the emergence of a new spatial government reflecting the globalization of neoliberal capitalism than a series of gradual changes over a century that result from the adaptation of mining companies to local constraints and correspond to the development, or re-organization, of various power strategies.

## 1. Introduction

At first glance, the tradition of mining companies providing housing to employees appears to be a vestige of the 20th century. In North America and Western Europe, mining company towns disappeared with the development of state housing and welfare programs and the rise of the car industry from the 1920s onwards (Daunton, 1990; Crawford, 1995). In Southern and Central Africa, where mining towns emerged later, they continued to have a life of their own until the 1980s (Crush, 1993; Demissie, 1998; Home, 2000; MacMillan, 2012; Mususa, 2012). It was not until the economic decline and political change of the last two decades of the century that companies were pushed to progressively abandon these housing estates. Regarding the investors who participated in the mining boom in the 2000s, Ferguson (2005, 2006: chap. 8) has argued that they develop a new capital-intensive mode of production in enclaves exonerating them from the obligation to provide housing and social services to employees. The rise of neoliberal capitalism would bring about the end of mining towns.

As mining projects develop, however, some companies rehabilitate existing infrastructures (e.g. Bezuidenhout and Buhlungu, 2015) and/or start building various types of camp for their workforce. The most impressive case of a new camp is probably in Kalumbila, in the Northwestern province of Zambia, where FIRST QUANTUM MINERALS (FQM) is currently building a new 'model town' comprising houses, schools, sport

facilities, etc., for 100,000 inhabitants. Although geographically isolated, the town is not strictly speaking within an enclave: it is open to newcomers and visitors. This case, I think, calls into question the narrative of the end of mining towns in the 21st century. At the very least, it invites a reflection on the limitations of Ferguson's enclave narrative, and a reconsideration of the history of the spatial government of mining companies in Africa.

To look at the issue in a new light, this article takes as a case study not Zambia's new extractive frontier, but the Congolese copperbelt (the Southern part of Katanga province) just on the other side of the border. Apart from the fact that I am more familiar with this region, there are two good reasons for this choice. First, *Union Minière du Haut-Katanga* (UMHK), which monopolized the mining industry in this area from 1906 to 1966, was the first to 'stabilize' its workforce from the 1920s onwards. Within the framework of this plan, mining towns were constructed equipped with a far more developed social infrastructure than in Northern Rhodesia – at least until the late 1950s. Second, drawing on Reno (2001), Ferguson (2006: 204–207) singles out the Congo in his discussion of new mining enclaves. In this country endowed with natural resources but managed by a weak and corrupt state, he argues that mining companies would be pushed to operate in secure pockets of territory directly connected to the global market.

After a discussion of Ferguson's enclave narrative, this article focuses on the history of worker camps in the Congolese copperbelt since the early 20th century.<sup>1</sup> Inspired by M. Foucault's genealogical method

E-mail address: [brubbers@uliege.be](mailto:brubbers@uliege.be).

<sup>1</sup> I will use here the word 'camp' in a generic way for all for the types of human settlements built by mining companies, even if camps took increasingly the form of 'modern' mining towns (or 'cités ouvrières' in French) from the 1930s onwards. In doing so, I follow ordinary language in the Congolese copperbelt, where people continue to distinguish the orderly space of the 'camp' from the disorderly place of the 'cité indigène'.

<https://doi.org/10.1016/j.geoforum.2018.10.005>

Received 28 June 2018; Received in revised form 8 September 2018; Accepted 1 October 2018

0016-7185/ © 2018 The Author. Published by Elsevier Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

and analytics of power (Foucault, 1993, 1971, 2004), each section attempts to identify the mining companies' political rationalities on the basis of a close analysis of the transformations in the camps' infrastructure – these transformations being considered as 'clues', or 'inscriptions', of broader power strategies. The role of other actors involved in this process such as workers, missionaries, or union leaders cannot be examined in detail here. Although these actors held distinctive views about camps (see Fabian, 1971; Higginson, 1989; Hanretta, 1999), their influence on their infrastructure and spatial organization was arguably limited.

Sources for retracing this political genealogy are uneven for the different periods studied here. For the first half of the 20th century, rich archival sources are available and have already been the subject of several analyses (Fetter, 1973; De Meulder, 1996; Hanretta, 1999; see also Fetter, 1976; Perrings, 1979; Higginson, 1989). This article analyses these sources from a different light, one which pays more attention to gradual changes in power strategies over the colonial period.<sup>2</sup> From the Second World War onwards, historical records on camps are scarcer. The few existing studies on the subject rely principally on oral sources (Henks, 1988; Dibwe dia Mwembu, 2001; Rubbers, 2013). Regarding the postcolonial period, my analysis will be mainly based on my own ethnographic fieldwork in the camp of Panda, on the outskirts of Likasi, between 2009 and 2012. Finally, the camps recently built by new mining investors were visited during the past few years while carrying out the [WORKinMINING] project – a comparative research project on labour in the mining sector in Congo and Zambia funded by the European Research Council's Consolidator grant programme (n°646802).

## 2. From mining towns to extractive enclaves?

In the recent literature on extractive industries in Africa, mining investments have been generally understood through the concept of enclave. Depending on the approach, this concept has two different – albeit connected – meanings. This article discusses the work of social scientists who use it to describe the enclosed space(s) that mining companies in the 21st century produce in the global South (Ferguson, 2005, 2006; Hönke, 2009a,b, 2010; Bezuidenhout and Buhlungu, 2015; Kirshner and Power, 2015; Côte and Korf, 2018). This focus on the mining companies' spatial inscription is taken as a starting point to reflect more broadly on their mode of governance, and their infrastructural, social, and political embeddedness in the countries where they are established. In political economy, by contrast, the word enclave does not refer to a material space delineated on a map, but to the weakness of linkages – as measured through various figures – that foreign mining companies develop with domestic firms in low-income countries (Singer, 1950; Auty, 2006; Morris et al., 2012).<sup>3</sup> In addition, as they focus on inter-firm relationships, these authors do not pay much attention to workers' living conditions – as if outsourcing had no impact on labour. They have accordingly not much to say about the history of workers' camps.

Among the social science studies using the concept of enclave, the work of Ferguson and Hönke deserve special attention here – it deals with cases from the Central African Copperbelt, their aim is to study changes in the spatial government of mining companies over time, and workers' camps are included in their historical analysis. Ferguson's

argument can be summarized as follows. During the last two decades, Africa has witnessed a stark increase in foreign mining investments, including in areas of so-called weak state government. If investments in such areas have been made possible, Ferguson suggests, it is because they take a new form, that of the securitized extractive enclave. Following the model of offshore oil platforms, mining companies seek to protect their production sites as fortresses insulated from their immediate environment. Two main developments allowed for the emergence of this more 'oil-like' model: the increasing mechanization of mining, which requires less labour than in the past, and the global marketization of private security services for protecting mining facilities from external threats. For Ferguson, this enclave mode of production contrasts that of large 20th-century mining corporations as it is developed by more mobile private companies and thereby less embedded in local society. The mining towns of the past made way for pockets of extraction that are more connected to the global market than to the national economy.

Formulated at the dawn of the mining boom (Ferguson writes in 2004), this thesis has sparked several empirical studies which have highlighted the work necessary to create extractive enclaves (Hönke, 2009a,b, 2010; Appel, 2012; Hendriks, 2013; Côte and Korf, 2018). These authors show that, in order to isolate a pocket of production from the society where it is established, companies must actively engage with various of social actors – including local elites, surrounding communities, police forces, and so on. As a result, extractive enclaves are inevitably more embedded in local society than Ferguson's thesis would suggest. The work of Hönke on the Congolese copperbelt is a good illustration of this analytical shift. Following Ferguson, she argues that the mining industry in this region has moved from a colonial model, based on the control of the workforce in camps, to a new model, centred on the securitization of mining concessions. In her view, however, this new spatial government does not completely isolate mining operations from the social and political environment in which they intervene, as it involves – among other things – collaborating with the police, co-opting customary chiefs, and financing development projects in surrounding communities to transform them into a 'protection belt' (see also Welker, 2014). Even CSR is interpreted here as part of a broader risk management strategy.<sup>4</sup>

Revisiting Ferguson's enclave narrative as a locally negotiated process is not sufficient, however. This article aims to take the critique of this narrative further by considering the variety of spaces that mining companies produce as well as the multiple political rationalities underlying them. The problem is not that an analysis in terms of enclave is misguided: As I will show below, it does highlight some of the broad changes brought about by the recent mining boom in the Congolese copperbelt. The point I want to make is that 'enclave' works as a 'steamroller' concept which tends to flatten the irregularities that can be observed on the ground:

- (1) It leads to obscure the various spaces that mining companies either produce or contribute to produce. If mining companies are entangled in multiple ways with local society, these relationships create various spaces that cannot be subsumed in the enclave concept in any simple way – that is, not only those highlighted by enclave analysis such as the concession, the transport corridor, or the community targeted by CSR programs, but also water/electricity networks, new urban areas, labour markets, and so on (see Kesselring, 2017; Bryceson and MacKinnon, 2012; Kirshner and Power, 2015).

<sup>2</sup> The analysis below is principally based on the publications of UMHK medical doctors. I have also consulted the UMHK archives and the African Archives in Brussels.

<sup>3</sup> When Morris et al. (2012; see also Bloch and Owusu 2012) announce the end of the enclave, they do not mean that foreign mining companies no longer operate inside securitized concessions. For them, the development of outsourcing in the industry creates new opportunities for increasing linkages with local firms. Provided that a number of conditions are met, foreign mining investments can therefore become a driving force for regional development.

<sup>4</sup> On the basis of what I have observed over the past decade, the capacity of mining companies in the Congolese copperbelt to actually function as enclaves needs to be reconsidered. Their security strategies prove to be highly inefficient in preventing artisanal miners from entering their production sites. This observation indicates that the boundaries of mining concessions are more porous than Hönke's analysis seems to suggest.

- (2) The multiple power rationalities underlying the production of these spaces is another related blind spot in enclave analysis. In this perspective, all strategies follow a single overarching principle of government (be it risk management, disentanglement, or neoliberalism) distinctive of mining capitalism in general. In doing so, it fails to consider not only the variety of investors characteristic of the recent mining boom (Lee, 2017), but also the multiple strategies involved in the spatial government of mining companies.
- (3) The historical narrative underlying enclave analysis is silent about the gradual changes in mining companies' spatial practices, emphasizing instead how securitized mining enclaves of the 21st century mark a rupture with the past. In addition, this great divide is based on a myopic or asymmetrical reading of history that does not focus on the same spaces in the past and present: Ferguson and Hönke, for example, claim that mining towns have given place to securitized enclaves without providing much details about how mine sites were secured in the past or how workers are housed today.

To bring to light the irregularities overlooked in enclave analysis, the spatial government of mining companies requires a more micro-level study. This is the aim of this article. In space, it takes as a point of departure not the enclave as an abstract space governed by a principle of closure but one of the concrete sites that mining companies create: the workers' camp. In time, rather than highlighting one great transformation at the turn of the 21st century, it seeks to identify the successive changes through which such camps have gone from the beginning of the 20th century to present. Finally, these changes are understood not only as a reflection of the general development of mining capitalism in the Congolese copperbelt, but also as the product of a range of political rationalities that stem from mining companies' adaptation to local circumstances.

### 3. First camps (1906–1923)

As a type of human settlement, workers' camps are characteristic of the mining frontier. Over the course of history, however, they have taken many different forms. The challenge here is to identify the processes accounting for the specific forms that camps took in Katanga in the early 20th Century. In the first decade of its existence, UMHK was confronted with serious technical and logistical problems. To be profitable, it prioritized the development of rich ore bodies near the surface using labour-intensive techniques. Since Katanga was isolated and sparsely populated, it adopted the migrant labour system developed by South African mining companies; contractors recruited workers from afar and drove them to Southern Katanga for a period of six to twelve months. This system, or mode of recruitment, was intended to provide UMHK with a large and cheap workforce.

At that time, Katanga province was administered by a chartered company, the *Comité Spécial du Katanga* (CSK). Like the *British South Africa Company* (BSAC) in Northern Rhodesia, it imposed limits on the duration of work contracts to prevent depopulation in rural areas. This limitation notwithstanding, the CSK was keen to assist UMHK recruiters without paying much attention to how they treated workers. In those days, the labour policy of the Belgian colonial administration was 'liberal' in the sense that it viewed industrial development as a matter of public interest that required strong state support (see Ewald, 1996: 75–87).

Situated near UMHK mines and plants, workers' camps were composed of rows of straw, mud, or iron sheet huts, each of which housed up to six people. Communal facilities, located at regular intervals in the camp, included kitchens, showers and wash houses. Likely written by the head of a camp in 1924, an anonymous and non-dated document entitled 'Overview of the general organization of a camp' (Anon., n.d.) that I found in the African Archives in Brussels provides a unique insight into how such camps were designed and administered in those

days. The author makes no secret that the choice to build camps with temporary materials is justified by the need to maintain the lowest costs possible. Such camps, he argues, also suit the workers themselves: They would prefer straw huts, as they are similar to those found in their villages, and, since they only stay for short periods of time, they would not care too much about their housing conditions anyway.

Built as barracks, UMHK camps were subjected to the autocratic power of a European man imposing military discipline on the workers. According to the author of the 'Overview' mentioned above, 'the best way to look after its boys and to increase their performance is to treat them like soldiers'. Accordingly, former White soldiers with a colonial experience were 'prime candidates' for fulfilling the job of head of camp. Among other personal 'qualities', he must have an 'instinct of command' to manage the workers 'with firmness but also with equity and benevolence'. Although an ordinance of 1922 banned the use of 'chicotte' (a small whip) on Africans, the head of the camp could still make his 'capitas' slap a worker as a form of 'paternal thrashing'.

The camps built between 1906 and 1923 not only responded to the need to provide low-cost housing to migrant workers, their design also increasingly considered the 'resistance' of workers as vulnerable bodies and subjects who could escape from work in the mines. Very early on, UMHK's medical service found that workers' camps were favourable to the development of various diseases, particularly pneumonia, dysentery, and typhoid fever. These caused high mortality and desertion rates, and discouraged workers to extend or renew their contract. To improve hygiene conditions, the service pushed the company to experiment with different plans, house types, and building materials (Mouchet and Pearson, 1922). While their inspiration came from South Africa, company doctors sought out the formula most appropriate to the conditions found in Southern Katanga (in terms of cost, climate, health issues, etc.). In 1922, for instance, the UMHK built hostels on the model provided by a South African expert, but adapted them to contain 14 beds instead of 48.

Under the influence of the company's medical service, the military discipline imposed in the camps was gradually subjected to a biopolitical imperative. A fence was erected around the camps not to keep workers in (they could get out freely) but to prevent them from defecating in the bush: This practice attracted flies, a vector of typhoid fever, the main cause of mortality death in the camps after pneumonia (Mouchet and Pearson, 1922: 32; 74). Even in the daily management of camps, growing emphasis was put on health surveillance to the point that the morning roll call, the quintessential ritual of camp life, was turned into an opportunity for giving hygiene lessons and identifying sick workers.

The results of this biopolitical strategy, however, were disappointing. In the early 1920s, despite the measures taken to improve living conditions in the camps, death, desertion, and turn-over rates remained high. As the medical service saw it, the problem was that this strategy was not applied on a fixed 'population', but instead had to tackle the constant flows of new migrant workers. It is this observation that led the UMHK to set up a 'stabilization' policy and build new camps in the 1920s.<sup>5</sup>

### 4. A eugenic project (1922–1933)

In the 1920s, the UMHK launched a new policy aimed at stabilizing its workforce near production sites in the copperbelt. Thanks to an influx of fresh capital from Belgium at the end of the First World War, it embarked on an ambitious program of industrialization that required a

<sup>5</sup> Provisional camps did not disappear from the landscape until the end of the 1930s. Brick houses were built progressively, starting with camps in the major mining and industrial centers. In addition, for developing small distant mines, UMHK continued to hire contractors who housed their workers in temporary settlements.

larger and better disciplined workforce. The simultaneous rise of the mining industry in Northern Rhodesia and extension of the railway network in Congo, however, led to increasing competition between employers. Both the British and the Belgian colonial authorities imposed restrictions on recruitment in rural areas for the Congolese mines. To overcome this labour shortage, the UMHK was authorized to organize its own recruitment missions in other provinces of the Congo and Ruanda-Urundi and to extend its work contracts to three years. At the same time, it encouraged workers to come in the mines with their wives and children. It was expected that their presence would encourage workers to stay for longer periods, while also enabling the company to supervise the growth and education of their descendants.

Stabilization led to several changes in the built environment of the UMHK camps. The organization of recruitment missions resulted in the erection of new temporary camps in rural areas to gather, convey, and prepare workers before their integration into permanent camps in Katanga. In these latter camps, brick houses with an iron or cement roof were built for married workers. From 1930 onwards, the most common type of house included four rooms: a bedroom for parents, another for the children, a veranda and a kitchen. Finally, to take care of children, the company built nurseries, canteens and schools, and entrusted their management to Belgian catholic orders, who came to play a central role in the daily social life of camps.

In a sense, UMHK's new policy consisted of implementing the recommendations of its medical service: recruiting married workers, building brick houses, limiting the number of beds per room, among others. While it had been deaf to such recommendations for a long time, the company now had sufficient capital to implement them. Stabilization also gave the early biopolitical project of its medical service a much stronger twist. Its aim was to raise a 'population' in its camps to create a new 'race' of industrial workers, cut from its rural roots (De Meulder, 1996; see also Murard and Zylberman, 1976).<sup>6</sup> With stabilization, UMHK was not managing flows of anonymous workers anymore, but maintained a stock of selected individuals, each of them representing a form of 'capital'. In these conditions, the company could not be satisfied with a general knowledge about the robustness of African 'races' and their ability to adapt to Katanga's climate (see Mouchet and Pearson, 1922). It required a more detailed knowledge about individuals' health and behavior (see Van Nitsen, 1933). New recruits were to be subjected to regular medical exams, and complete records were maintained on them and their family.

This eugenic project is nowhere more visible than in the recruiting practices and the care provided to workers' wives and children. Led by doctors, recruitment missions sought out candidates for work in the mines using a ruggedness test (Clignet) for the workers and pelvic measurements for women (Van Nitsen, 1933). Successful candidates were sent (alone or accompanied with their wife) to a concentration camp, and then to a preparation camp, where they were vaccinated, dressed, and fed for several weeks. Once in the copperbelt, new recruits still had to stay in an acclimatization camp to once again strengthen their body, and learn the basics of industrial work discipline (handling tools, obeying to orders, resisting to long work hours, etc.). In the final camps, near mines and plants, the medical staff sought to stimulate workers' reproduction by different means (Mottoulle, 1931; see Hunt, 1988). During post-natal consultations, mothers were pushed to shorten the period of breastfeeding in order to increase their fertility. To reduce infant mortality, it was compulsory that children above five years-old had to eat in a specialized canteen, under the supervision of Catholic missionaries.

The space of camps itself was reorganized in accordance with the company's new biopolitical strategy. Their access was put under a tight control to limit contacts between 'stabilized' workers and others—be

that contract workers, Africans living at the 'cité',<sup>7</sup> or fellow tribal members.<sup>8</sup> Within camps, workers from different 'tribes' came to be progressively mixed from 1931 onwards. Although this measure was initially aimed to avoid conflicts, it contributed to a blurring of tribal affiliations and triggered the emergence of a new community, the 'Union minière family'. At the same time, this community was divided along new lines. Quarters for married workers were built separately from those for single workers, and comprised different types of house depending on the number of children. In addition, specific spaces were now assigned to men, women, and children. This new 'art of distribution' was above all aimed at controlling workers' sexuality and heredity. It also sketched out the family policy that UMHK would develop in the following decades.

## 5. A social government (1934–1960)

In the aftermath of the Great Depression, stabilization policy came to be viewed as a success and the labour shortage was no longer a problem (Mottoulle, 1946; Toussaint, 1956). The UMHK was mechanizing its operations and expanding its activities, and the challenge was no longer an issue of increasing its African workforce but how to train it in order to raise its productivity and replace Whites in semi-skilled positions. To meet this goal, the company introduced a new job classification in the mid-1930s, which offered workers various advantages depending on different criteria, including professional qualification, length of service, disciplinary record, and level of 'civilization'.

At another level, to solve the 'problems' caused by industrialization and urbanization, colonial authorities gradually established a social policy aimed at controlling access to the city, moralizing family life, and promoting workers' rights. In the aftermath of the Second World War, laws regulating such matters increased rapidly.<sup>9</sup> In order to quell popular discontent and respond to criticisms internationally, the colonial administration also conceived a ten-year development plan that would involve building of new houses, hospitals, schools, community centres, and so on (Vanthemsche, 1994; see Cooper, 1996). Caught in the movement, UMHK not only complied with new social regulations, it sought to remain one step ahead of colonial policy by creating new social infrastructures in the camps, funding large community development programs, and promoting social science research (see Rubbers and Poncelet, 2015).<sup>10</sup> Its ambition was to create 'model' company towns under the tropics – an aspiration that gave rise to other similar experiments in the Congo during the colonial period (see Hendriks, 2013; Walker, 2014; Henriët, 2016).

These changes had a considerable impact on the UMHK camps.

<sup>7</sup> Since the late 1920s, colonial authorities discerned in mining towns the existence of a 'detribalized' population who had supposedly cut off its rural roots. They decided to house this population in a 'centre extra-coutumier', or 'cité indigène', with autonomous powers vis-à-vis customary chiefs. Although formally independent, in practice the 'cité' remained under colonial administration's control.

<sup>8</sup> Walker (2017; see also 2014) suggests that this concern to create 'islands of health' was found in different parts of the colony, and that it was conveyed through epidemiological metaphors of infection and contamination.

<sup>9</sup> Authorization of trade unions and work councils (1946), prohibition of polygamy (1949), increase of the minimum house surface (1949), compensation for work accidents (1949), creation of the labour inspection (1950), generalization of family allowances (1951), introduction of paid holidays (1954), medical care of the family by the employer (1954), limitation of the working day to eight hours (1957), and so on.

<sup>10</sup> As the company works council's minutes show, some of the improvements brought to camps' infrastructure have been claimed by workers' representatives rather than deliberately granted by management. Established immediately after the law authorizing trade unions was passed in 1946, the *Conseil Indigène d'Entreprise* at UMHK was composed of workers appointed by the employer. The role of these representatives was to voice workers' concerns, which most often had to do with their salary and their living conditions.

<sup>6</sup> This eugenic project was part of a more global trend in the interwar period (see Bashford and Levine 2010).



Quarters for single workers slowly disappeared to give place to family houses with a small garden along tree-lined avenues. Each quarter was characterized by a house of two to five rooms (a living room, a kitchen and separate bedrooms for parents, boys and girls). The allocation of houses no longer depended on the size of the family alone, but also on the worker's category in the job classification. In the 1950s, UMHK even gave housing allowances to top-ranked workers (teachers, nurses, and skilled workers) to stay in the 'cité'. Formerly based on a simple division between married and single workers, camp space was used to facilitate a more complex hierarchy founded on biopolitical, professional and cultural criteria from the 1930s onwards.

After the Second World War, camps were also equipped with theatres, recreational facilities, and community and youth centres. Taken together, recreational activities were intended to fight idleness, impose new practices and values, keep camp residents under control, and foster attachment to the 'Union minière family'. They played a role in the emergence of a more 'total' disciplinary regime (Fetter, 1973), the aim of which was no longer to reproduce the workforce but to mobilize it, to increase its productivity. From a biopolitical government, the UMHK had moved to a social government functioning through the multiplication and intensification of disciplines.

A key role in this new disciplinary device was assigned to community centres (*foyers sociaux*). In these centres, white women offered lessons to the workers' wives in cooking, sewing, childcare, etc., and inspected each household in the camp. Such control was particularly strict for top-ranked workers: Social workers checked that the beds were made, that the table was properly set, or that children were clean. If the report was positive, the worker was rewarded. If not, the company sanctioned him. The purpose was to teach women the basics of domesticity and, accordingly, create 'modern' families – that is, nuclear families, characterized by a clear division of roles, in the image of the company's social order (see Rubbers, 2015b).

## 6. Nationalization (1960–1975)

In the years following Mobutu's rise to power in 1965, UMHK and its subsidiary companies were nationalized and merged into a large, state-owned company, the *Générale des Carrières et des Mines* (GECAMINES). To benefit from the high copper prices on the global market, it increased production and started a new industrial development plan. Together with the Africanization of managerial staff, this expansion of activities led to a rapid increase in the workforce. Although confronted to growing inflation, GECAMINES workers continued to have higher living standards than the rest of the population, largely due to the various services the company provided in its camps. At the same time, the Mobutu regime granted GECAMINES mining concessions to two international consortiums that created the *Société de Développement Industriel et des Mines du Zaïre* (SODIMIZA) and the *Société Minière de Tenke-Fungurume* (SMTF). Although both mining projects developed rapidly, they faced economic difficulties that pushed foreign investors to withdraw from the Congo in the second half of the 1970s.

Contrary to what one might think, the construction of workers' camps did not end with decolonization. If SMTF only built a pre-fabricated camp for expatriates, SODIMIZA erected two new mining towns on the model provided by UMHK. On the other side of the country, a new company town also rose from the ground next to the Maluku metallurgic plant, one of the 'white elephants' of the Mobutu regime (see Verhaegen, 1985). These newly constructed towns conveyed a claim of national modernity, continuing late colonial development programs under a new guise (Ferguson, 2006: 161; Appel, 2012: 455).

The GECAMINES also modernized the camps inherited from UMHK. All houses were equipped with electricity, a water tap, and latrines. For

the growing number of skilled workers, hundreds of new houses with indoor toilets and bathrooms were built. Technical and secondary schools were erected near the camps to facilitate the workers' children direct access to managerial positions. The modernization of camps, however, was insufficient to overcome the shortage of housing caused by the increased workforce. Freshly recruited (or transferred) employees had to live temporarily in a smaller house than they were entitled to, or stay in a camp far from their workplace. As a result, camps progressively became overcrowded in the 1970s.

Independent of the modernization and overcrowding of camps, the most important change that occurred in the years following Independence was the progressive relaxation of the company's control: no more curfews at night, no more gates and guards at camps' entrance, no more restrictions on household composition and no more inspection visits by social workers. This liberalization of camp life rapidly undermined the family policy that UMHK had pursued in the colonial period. Workers were now free to go out in the 'cité' at night, to take a second wife or to host relatives at home. Although courses in various domestic skills were still organized in community centres, they attracted much less women than they had in the past.

The presence of the state, in return, strengthened with the rise of the Mobutu regime. A new administrative structure, as well as various political bodies, was established in the camps to control and mobilize the workers (Henk, 1988: 51–58; 179–185). In the new organization, the head of camp, who remained company employee, was also the local representative of the state administration and president of the single party. Compared to UMHK in the past, the control exercised by the state was less oriented towards the imposition of disciplines through the spatial device of the camp than towards the maintenance of its sovereign power through policing and political rituals (Foucault, 1993; Mbembe, 2001). It no longer sought to increase bodies' (re-)productive powers, but to have them participate in performances of loyalty and grandeur.

## 7. Decline (1976–2004)

In the course of the 1970s, GECAMINES – SMTF and SODIMIZA as well – was confronted with adverse economic conditions that put its development plans in jeopardy. Additionally, to circumvent the budget restrictions imposed by international financial institutions, the Mobutu regime started to divert its revenues for political purposes. In the 1980s, pushed to increase production at any cost to meet the regime's growing demands, the company was unable to renew or maintain its machines and facilities. It is this vicious circle that led to its rapid decline in the early 1990s: Production collapsed and in default of payment, GECAMINES had to cut costs on all fronts. While it did not dismiss workers, it lost one third of its workforce after political militias forced Kasaians to leave Katanga province in 1992–1993. The remainder – some 24,000 workers – saw its purchasing power dissipate as a result of hyperinflation and the benefits offered by the company were progressively cut.

GECAMINES resorted to various strategies to resume production. It solicited loans from foreign traders to put money into production, it signed joint-venture contracts with foreign private investors and, in 1998, when GECAMINES was pushed to hand over mines for artisanal mining, it also became involved in this trade with the support of local businessmen. None of these strategies were, however, successful, as profits generated by these financial arrangements were systematically embezzled. In 2003, at the instigation of the World Bank, the state-owned company was restructured: its main mining and industrial assets were transferred to private investors, and its workforce was reduced from 24,000 to 14,000 employees.

At first glance, the long decline of GECAMINES in the last two decades of the 20th century led to a severe deterioration of its camps.

Due to a lack of maintenance, buildings fell into decay, roads collapsed, electricity was cut off, water pipes leaked, and vegetation covered open spaces. Unable to house all its employees, the company assigned them offices or classrooms that they converted into makeshift dwellings. In addition, confronted by a severe decline in their living conditions, camp residents pilfered goods from the company to equip their house or resell them on the market.<sup>11</sup> Today, the GECAMINES camps appear as ghosts of a bygone era, abandoned to the erosion of time for more than thirty years.

As my research on the camp of Panda (Rubbers, 2013) shows, this general deterioration of the built environment conceals subtler changes. First, the social life of camp residents progressively shrank after the company sold its houses to workers in the 1980s,<sup>12</sup> which had allowed them to develop informal activities at home (opening a shop, raising poultry, etc.), and, in turn, led to new economic disparities in the camp. Some even managed to rent or sell all or part of their house to outsiders. As newcomers came to live in the camps, they contributed to making these spaces less homogeneous than they had been in the past. Nowadays the people that I met in Panda often say that they look after their own business and avoid interacting too much with neighbours:

“When we were working at Gécamines”, one of them told me, “we had a group savings system between neighbours here. Each month, on pay day, we received bags of rice, bags of sugar, soap, all that was needed for the household from the company. Each household in the neighbourhood was giving a bag of rice to two families. It was good. But for the moment, there is no way. When I’m here at home, I don’t care about my neighbours. They are in their home, and I’m in mine. I only know my house”

At the same time, spatial boundaries that marked sharp social distinctions in the past have lost much of their significance since the 1980s. Confronted with a general decline in their living conditions, all GECAMINES employees had to fend for themselves to survive, and those higher in the hierarchy were not necessarily better equipped than others to carry out informal subsistence activities on the side. Generally speaking, GECAMINES camps lost their status of exception among Congolese cities. Formerly a protected social category, their inhabitants have become poorer than the rest of the urban population in the copperbelt. Looking for money to feed their family, send their children to school, or pay unexpected medical fees is now part of their daily experience, as it is for other Congolese people for more than three decades. A clear indication of this integration of former camps in Congolese ‘cityness’ has been the appearance of bars, private schools, or Pentecostal churches within their boundaries – that is, places formerly associated with the ‘*cité*’, the town.

In sum, the decline of GECAMINES not only caused the deterioration of camp infrastructures, but also took the tendencies that were already at work to extremes, such as the withdrawal of the company from camp management, the development of private services and informal activities, and the decline of communal life. In these changes, it is possible to see the re-appropriation of camp space by their inhabitants, progressively leading to the de-totalization of coercive, biopolitical, and disciplinary strategies that operated through the camp in the colonial period. The political rationality behind this abandonment of camps to workers could be viewed as an expression of what J.-F. Bayart called the ‘governmentality of the belly’ (Bayart, 1989a,b). It is this mode of government, one might suggest, that led to the informal privatization of the company, to the unravelling of its social policy, and to the proliferation of ‘tactics’ among workers (De Certeau, 1990). In the

GECAMINES camps, it introduced what Congolese people under the Mobutu regime dubbed ‘article 15 of the Constitution’: ‘*Débrouillez-vous*’.

## 8. New camps (2005–2017)

Following Joseph Kabila’s accession to power in 2001, the World Bank came back to Congo to support the reconstruction of the economy, devastated by years of war. The liberalization of the mining sector was central to its strategy: It prescribed changes in the law to attract new foreign investors and organized the restructuring of state-owned mining companies. GECAMINES in particular was pushed to transfer mining and industrial assets to new joint-venture projects with foreign private companies. Following the rise in copper prices in 2004, investors of various sizes and origins flocked to the copperbelt to snatch up the company’s most promising assets. Ten years later, a dozen projects were found in operation, producing a total of one million tons of copper (that is, double GECAMINES’s production record in 1986), and three new underground projects were in the development phase.

This multiplication of large-scale mining projects aroused strong tensions with artisanal miners; it did not, however, result in the end of small-scale mining in the copperbelt. On the contrary, the number of artisanal miners continued to increase, leading to the development of new mines and the construction of new processing plants. Although its growth is more fragile and limited in the longer term, this production chain remains firmly established in the Congolese mining landscape.

The enclave thesis discussed above points to broad changes that are visible in the Congolese copperbelt: While new investors produce more copper, they hire fewer (permanent) workers and contribute less to national development; in return, their security apparatus around mines and plants is more sophisticated. This line of analysis, however, fails to account for the diversity of mining projects (they are developed by investors of various sizes and origins, in diverse locations, through different legal arrangements with GECAMINES, among others) and their spatial effects. This limitation is clear if we look at the space of workers’ camps. In accordance with the enclave thesis, most observers of the mining boom in the copperbelt suggest that, in contrast to GECAMINES in the past, mining companies do not build camps, hospitals and schools for their workers. The reality on the ground is, however, more complex. Taking the location of mine sites as a point of departure, it is possible to distinguish three scenarios:

- (1) The first is represented by mining projects located near large urban centres. It includes projects like MMG and RUASHI MINING near Lubumbashi or KCC, MUMI, and KAMOA-KAKULA near Kolwezi. In this case, the employer simply builds camps (houses, a canteen, sport facilities, etc.) for expatriates. On site, according to the project’s stage of development, it is made of tents, containers or bungalows. In town, expatriates are accommodated in brick houses inside a secure compound. Congolese employees, on the other hand, have to find accommodation themselves. In accordance with the law, they receive a small housing allowance and can take a shuttle to the mine site every day. Medical care for workers and their families – another legal requirement – is subcontracted to private health centres.
- (2) Another scenario is provided by mining projects (like BOSS MINING or KINSEDA MINING) located far from large urban centres, but close to former GECAMINES or SODIMIZA camps. A case in point is BOSS MINING, near the former GECAMINES town of Kakanda, 200 km from Lubumbashi. Similar to the first scenario, the company built a new camp (bungalows, a canteen, bar and sport facilities) on site, but this is not exclusively for expatriates: Most residents are Congolese employees who come from Katanga’s major cities for periods of five to ten days. In addition, BOSS MINING rehabilitated and took over the management of GECAMINES housing, hospital, and schools in Kakanda. Workers and their family have a free access to these facilities.

<sup>11</sup> According to Henk (1988), the theft of company property was already common in the 1980s.

<sup>12</sup> For women, this process of ‘individualization’ had begun in the 1960s with the provision of running water in each household, and the desertion of fountains and washtubs that resulted from it.

(3) The last scenario is that of relatively remote mining projects. The mining boom in the Congo has not led to the emergence of new mining towns like Kalumbila where FQM built around 3000 houses for rent and purchase, with all the modern amenities to 'stabilize' its workers and families in this remote area of Zambia. Located at a shorter distance from major cities, mining companies in the Congolese copperbelt have opted for cheaper (and less risky) solutions. FRONTIER, which bought the rights of a mine situated near the small border town of Sakania to FQM, offers three options to its employees: top managers can stay in a prefabricated camp on site during the week, and return home in Lubumbashi or N'dola at the weekends; other employees can choose between renting a house in Sakania or in the camp that FQM has built on its outskirts. 320 households currently live in this camp, which consist of rows of brick houses with small gardens and car parks. On the other hand, there is no social infrastructure in the camp so that its inhabitants have to go to town for schools, health centres and other facilities.

In addition to these workers' camps, more provisional camps have popped up near the artisanal mines. On the sites where artisanal miners work independently, camps are made of tarp tents and include various services (restaurants, brothels, shops, etc.). On sites run by small-scale mining companies, the artisanal miners working for them as day laborers usually receive tents – or at least, the tarpaulin – from their employer, who also look after the food supply. Built hastily with portable materials by a poor and mobile population, artisanal mining camps usually do not follow any plans and are devoid of basic infrastructure (running water, toilets, dumping site, etc.). By the forces of circumstance, their existence is temporary: such camps last until the mine can no longer be exploited with hand tools or is bought by a large-scale mining company.

From these various scenarios, it can be inferred that the decision to build camps and social infrastructure for workers (or taking up existing ones) mostly depends on circumstances. Schematically it depends on three factors: the relative proximity, or accessibility, of the mine from large urban centres; the arrangement made between the foreign investor and GECAMINES; and, of course, the financial aspects of the mining project. While small-scale mining companies are content with a provisional solution, large-scale mining companies often make gradual improvements to their camps. The decision is dependent upon the availability of capital, the profitability of the project and future prospects (some mining companies that had ambitious plans for their camps backpedalled following the fall of copper prices and the growing political instability in the country).

Generally speaking, mining companies in Congo today operate under more precarious conditions than UMHK or GECAMINES in the past. Most are listed companies that must pay dividends to shareholders in the short run. Even though the state is, directly or indirectly, a minority partner in nearly all projects, it does not offer the conditions of stability the former regimes provided to the mining industry in the 20th century. And since their rights cover a much smaller concession, they do not have the opportunity to change their mining strategy according to copper and cobalt prices on the world market. It is this relative precariousness that pushed investors to build provisional and rudimentary camps (no garden, no school, no shop, etc.) to house their workers alone while on site. If these camps remain a place where the employer develops various (control, disciplinary and biopolitical) strategies, the focus is almost exclusively on labour productivity. It does not mean that mining companies no longer have a family policy but that this policy is now disconnected from the spatial technology of the camp: it is conducted by other means such as the payment of school allowances for the workers' children, the subcontracting of health care to private centres, the management of wives' complaints about the use of workers' money, etc. In short, corporate power strategies are no longer concentrated in the single locus of the camp; they operate through more flexible devices that entangle mining companies in multiple (local) spaces.

To a certain extent, although new camps are part of a different

labour regime, they show more parallels with the camps of UMHK in the early 20th century than with those that characterized the heydays of GECAMINES: built on a geometric pattern with temporary materials, they temporarily house single workers; they leave little room for intimacy, aesthetics, and social life outside of work; and, independent of the still-visible distinction between expatriates and nationals, the space is not used to signal social or cultural hierarchies. I believe there are good reasons for making this comparison. Similar to UMHK's underlying rationale in its early stages, building barrack-like camps and subjecting its residents to a strict work discipline appeared to new investors in the Copperbelt as the best option for mining projects in their development phase when confronted with a precarious economic and political environment.

## 9. Conclusion

To study the spatial government of mining companies in the Congolese copperbelt, this article took the history of workers' camps as a starting point. In doing so, its aim was to revise the enclave analysis by looking at more specific power strategies and historical changes – those related to labour control and workers' camps. What the genealogy of workers' camps retraced above shows is not so much the emergence of a new capitalism breaking with the past, but a series of transformations over a century, each corresponding to the development, or re-organization, of various power rationalities. Throughout this history, mining companies have used camps as a spatial technology to govern their workforce, and adapted their built form according to changing political rationalities.

In a nutshell, over the 20th century, workers' camps in the copperbelt have witnessed a cumulation of coercive, biopolitical and disciplinary strategies, which was followed by a decumulation of these strategies to the profit of the affirmation of the state's sovereign power, and of the camp residents' tactics – the turning point being situated between 1960 and 1975. Since the late 1990s, with the emergence of new (temporary) camps, it could be argued that a recovery process took shape, as if one cycle had ended and another was about to begin.

To be sure, the general shape of this movement cannot be understood independently of the dynamics of global mining capitalism and, more specifically, variations in copper prices on the world market. This is obvious when the many parallels that the history I have outlined here shows with that of mining camps on the other side of the border are considered (see [Mutale, 2004](#); [Mususa, 2012](#)). As the emergence of company towns in the United States had resulted from the rise of large mining corporations in the period between 1870 and 1930 ([Schmitz, 1986](#)), the development of workers' camps in Northern Rhodesia and the Belgian Congo from 1930 to 1960 corresponded to the growth of the colonial mining industry, which had been sustained by the support of big financial conglomerates and favourable economic conditions. The gradual decline of camps between 1975 and 2000 coincided in turn with the nationalization of mining companies and the decline of copper prices on the world market. Finally, the building of new camps for a decade or so stems from the redeployment of mining capitalism in the global South and the boom of copper prices caused by growing Chinese demand.

This approach centred on capitalism, however, remains insufficient to account for changes in how the camps were built and governed. As this article shows, such changes resulted above all from adaptation to local constraints, in particular: (1) the availability of healthy, disciplined, and skilled workers near mine sites; and (2) state economic, political, and social regulations and programs. If the role of workers has been negligible in Congo, it was more important in Northern Rhodesia, especially after the Second World War ([Henderson, 1972](#); [Parnart, 1983](#); [Larmer, 2007](#)), as workers organized to claim better living conditions in the camps and won their case.

For the recent boom in mining investments, if a new cycle in the history of workers' camps seems about to start, it is because the



conditions that led to the emergence of camps in the past have not completely disappeared. Similar to the situation faced by UMHK at the beginning of the 20th century, new mining projects established far from major urban centres must attract and house their employees on site. Like SODIMIZA in the late 1960s, they invest in a state that has inherited the social legislation developed by the Belgian colonizer in the aftermath of World War II, and remains engaged in a modernization project.<sup>13</sup> Furthermore, if the new camps built by the new investors are more temporary than those of UMHK and GECAMINES in the second half of the 20th century, it is less because investors have developed a distinct rationality, associated with the rise of a new capitalism, than because they can rely on existing infrastructure (roads, schools, etc.) and develop their activities in a more precarious environment.

While the analysis here is limited to Congo, it opens the possibility of comparing processes of workers' camps formation from below (Bayart, 2008). In this perspective, the (un-)making of camps is understood as resulting from an adaptation of mining capitalism to local conditions, and reflecting the development of various power rationalities and procedures for controlling the workforce. Such an approach offers clues – I believe – for making sense of the similarities and contrasts that the history of workers' camps in the Congolese copperbelt show not only with that of camps in Zambia, but also of compounds in South Africa, company towns in North America, or mining towns in Western Europe.

## Declarations of interest

None.

## Acknowledgement

Benjamin Rubbers was Francqui Research Professor in the period 2015–2018. This article was written as part of the WORKINMINING project ([www.workinmining.ulg.ac.be](http://www.workinmining.ulg.ac.be)). This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement n° 646802). The ideas developed in this article reflect only the author's view. The ERC is not responsible for any use that may be made of the information it contains.

## References

- Anonymous, n.d., "U.M.H.K. Main d'oeuvre indigène. Camp de Panda. Aperçu sur l'organisation générale d'un camp indigène et sur le fonctionnement des divers services. (s.d.1924?)", Archives africaines, Ministère des affaires étrangères, Brussels, ref. D (4578).36.
- Appel, H.C., 2012. Walls and white elephants: oil extraction, responsibility, and infrastructural violence in Equatorial Guinea. *Ethnography* 13 (4), 439–465.
- Auty, R., 2006. Mining enclaves to economic catalyst: large mineral projects in developing countries. *Brown J. World Aff.* 13 (1), 135–145.
- Bashford, A., Levine, P. (Eds.), 2010. *The Oxford Handbook of the History of Eugenics*. Oxford University Press, Oxford.
- Bayart, J.-F., 1989a. *L'Etat en Afrique. La politique du ventre*. Fayard, Paris.
- Bayart, J.-F., 1989b. Les églises chrétiennes et la politique du ventre. *Polit. Afr.* 35, 3–26.
- Bayart, J.-F., 2008. Comparer par le bas. Sociétés politiques comparées 1–25.
- Bezuidenhout, A., Buhlungu, S., 2015. Enclave Rustenburg: platinum mining and the post-apartheid social order. *Rev. Afr. Polit. Econ.* 42 (146), 526–544.
- Bloch, R., Owusu, G., 2012. Linkages in Ghana's gold mining industry: challenging the enclave thesis. *Resour. Pol.* 37, 434–442.
- Bryceson, D., MacKinnon, D., 2012. Eureka and beyond: mining's impact on African urbanization. *J. Contemp. Afr. Stud.* 30 (4), 513–537.
- Cooper, F., 1996. *Decolonization and African society. The labor question in French and British Africa*. Cambridge University Press, Cambridge.
- Côte, M., Korf, B., 2018. Making concessions: extractive enclaves, entangled capitalism and regulative pluralism at the gold mining frontier in Burkina Faso. *World Dev.* 101, 466–476.
- Crawford, M., 1995. *Building the Workingman's paradise: the design of American company towns*. Verso, London and New York.
- Crush, J., 1993. Scripting the compound: power and space in the South African Mining Industry. *Soc. Space* 12, 301–324.
- Daunton, M.J. (Ed.), 1990. *Housing the Workers: A Comparative History 1850–1914*. University Press, Leicester.
- De Certeau, M., 1990. *L'invention du quotidien. Arts de faire*. Gallimard, Paris.
- De Meulder, B., 1996. De kampen van Kongo: arbeid, kapitaal and rasverdeling in de koloniale planning. Antwerp, Kritak.
- Demissie, F., 1998. In the shadow of the gold mines: Migrancy and mine housing in South Africa. *Hous. Stud.* 13, 445–469.
- Dibwe dia Mwembu, D., 2001. *Bana Shaba abandonnés par leur père: structures de l'autorité et histoire sociale de la famille ouvrière au Katanga 1910–1997*. L'Harmattan, Paris.
- Ewald, F., 1996. *Histoire de l'Etat providence*. Grasset and Fasquelle, Paris 1986.
- Fabian, J., 1971. *Jamaa. A charismatic movement in Katanga*. Northwestern University Press, Evanston.
- Ferguson, J., 2005. Seeing like an oil company: space, security, and global capital in Neoliberal Africa. *Am. Ethnol.* 107 (3), 377–382.
- Ferguson, J., 2006. *Global Shadows: African in the Neoliberal World Order*. Duke University Press, Durham and London.
- Fetter, B., 1973. *L'Union minière du Haut-Katanga, 1920–1940: La naissance d'une sous-culture totalitaire*. Cahiers du CEDAF 9–10, 1–68.
- Fetter, B., 1976. *The Creation of Elisabethville (1910–1940)*. Hoover Institution Press, Stanford.
- Foucault, M., 1993. *Surveiller et punir. Naissance de la prison*. Gallimard, Paris 1975.
- Foucault, M., 1971. Nietzsche, la généalogie, l'histoire. *Hommage à Jean Hyppolite*. In: Dits et écrits 2, 2001. Gallimard, Paris, pp. 136–156.
- Foucault, M., 2004. *Sécurité, territoire, population. Cours au collège de France 1977–1978*. EHESS/Gallimard/Seuil, Paris.
- Hanretta, S., 1999. Space in the discourses on the Elisabethville mining camps: 1923–1938. In: Bernault, F. (Ed.), *Enfermement, prison et châtiments en Afrique: du 19e siècle à nos jours*. Karthala, Paris, pp. 305–335.
- Henderson, I., 1972. *Labour and Politics in Northern Rhodesia 1900–1953: A Study in the Limits of Colonial Power*. University of Edinburgh unpublished Ph.D. thesis.
- Hendriks, 2013. *Work in the Rainforest. Labour, Race and Desire in a Congolese Logging Camp*. University of Leuven (unpublished Ph.D. thesis).
- Henk, D.W., 1988. *Kazi ya Shaba: Choice, Continuity and Social Change in An Industrial Community of Southern Zaire*. University of Florida (unpublished Ph.D. thesis).
- Henriet, B., 2016. *The Concession Experience. Power, Ecology, and Labour in the Leveville Circle (Belgian Congo, 1911–1940)*. University of St-Louis (unpublished Ph.D. thesis).
- Higginson, J., 1989. *A Working Class in the Making. Belgian Colonial Labor Policy, Private Enterprise, and the African Mineworker, 1907–1951*. University of Wisconsin Press.
- Home, R., 2000. From barrack compounds to the single-family house: planning worker housing in colonial Natal and Northern Rhodesia. *Plan. Perspect.* 15 (4), 327–347.
- Hönke, J., 2009a. Transnational pockets of territoriality. Governing the security of extraction in Katanga (DRC), vol. 2 Working Paper Series of the Graduate Centre Humanities and Social Sciences of the Research Academy Leipzig.
- Hönke, J., 2009b. Extractive orders. Transnational mining companies in the nineteenth and twenty-first centuries in the Central African Copperbelt. In: Southall, R., Melber, H. (Eds.), *A New Scramble for Africa? Imperialism, Investment and Development*. University of Kwazulu-Natal Press, Durban, pp. 274–298.
- Hönke, J., 2010. New political topographies. Mining companies and indirect discharge in southern Katanga (DRC). *Polit. Afr.* 4, 105–127.
- Hunt, N.R., 1988. 'Le bébé en brousse': European women, African birth spacing and colonial intervention in breast feeding in the Belgian Congo. *Int. J. Afr. Hist. Stud.* 21 (3), 401–432.
- Kesselsring, R., 2017. The electricity crisis in Zambia: blackouts and social stratification in new mining towns. *Energy Res. Soc. Sci.* 30, 94–102.
- Kirshner, J., Power, M., 2015. Mining and extractive urbanism: postdevelopment in a Mozambican boomtown. *Geoforum* 61, 67–78.
- Larmer, M., 2007. *Mineworkers in Zambia. Labour and Political Change in Postcolonial Africa*. Tauris, London.
- Lee, C.K., 2017. *The Spectre of Global China. Politics, Labor and Foreign Investment in Africa*. Chicago University Press, Chicago.
- MacMillan, H., 2012. Mining, housing and welfare in South Africa and Zambia: an historical perspective. *J. Contemp. Afr. Stud.* 30 (4), 539–550.
- Mbembe, A., 2001. *On the Postcolony*. University of California Press, Berkeley and Los Angeles.
- Morris, M., Kaplinsky, R., Kaplan, D., 2012. 'One thing leads to another' – commodities, linkages and industrial development. *Resour. Pol.* 37, 408–416.
- Mottouille, L., 1931. Historique, organisation et résultats obtenus d'une oeuvre de protection de l'enfance noire dans la population indigène industrielle de l'Union Minière du Haut-Katanga. *Bulletin des séances de l'Institut Royal Colonial Belge* 3, 531–544.
- Mottouille, L., 1946. Politique sociale de l'Union Minière du Haut-Katanga pour la main-d'oeuvre indigène et ses résultats au cours de vingt années d'application. *Bulletin des séances de l'Institut Royal Colonial Belge* 17.
- Mouchet, R., Pearson, A., 1922. *L'hygiène pratique des camps de travailleurs noirs en Afrique tropicale*. Goemaere, Brussels.
- Murard, L., Zylberman, P., 1976. *Le petit travailleur infatigable. Villes-usines, habitat et intimités au XIXème siècle*. Recherches, Paris.
- Musua, P., 2012. Mining, welfare and urbanization: wavering urban character on Zambia's copperbelt. *J. Contemp. Afr. Stud.* 30 (4), 571–587.
- Mutale, E., 2004. *The Management of Urban Development in Zambia: International Land Management Series*. Ashgate Publishing, Aldershot.
- Parpart, J., 1983. *Labor and Capital on the African Copperbelt*. Temple University Press,

<sup>13</sup> In 2011, the slogan of J. Kabila's new programme was 'revolution of modernity'.



- Philadelphie.
- Perrings, C., 1979. Black Mineworkers in Central Africa. Heineman, London.
- Reno, W., 2001. How sovereignty matters: international markets and the political economy of local politics in weak states. In: Callaghy, T., Kassimir, R., Latham, R. (Eds.), *Intervention and Transnationalism in Africa: Global-Local Networks of Power*. Cambridge University Press, New York, pp. 197–215.
- Rubbers, B., 2013. Le paternalisme en question. Les anciens ouvriers de la Gécamines face à la libéralisation du secteur minier katangais (R.D.Congo). *L'Harmattan*, Paris.
- Rubbers, B., 2015. When women support the patriarchal family. The dynamics of marriage in a Gécamines mining camp (Katanga province, D.R.Congo). *J. Hist. Sociol.* 28 (2), 213–234.
- Rubbers, B., Poncet, M., 2015. Sociologie coloniale au Congo belge. *Les études sur le Katanga industriel et urbain à la veille de l'indépendance*. *Genèses* 99, 93–112.
- Schmitz, C., 1986. The rise of big business in the world copper industry 1870–1930. *Econ. Hist. Rev.* 39 (3), 392–410.
- Singer, H., 1950. The distribution of gains between investing and borrowing countries. *Am. Econ. Rev.* 15, 473–485.
- Toussaint, E., 1956. Le personnel congolais. In: *Union Minière du Haut-Katanga. Evolution des techniques et des activités sociales. 1906–1956*. L. Cuypers, Brussels, pp. 213–276.
- Van Nitsen, R., 1933. L'hygiène des travailleurs noirs dans les camps industriels du Haut-Katanga. Hayez, Brussels.
- Verhaegen, B., 1985. Les safaris technologiques au Zaïre (1970–1980). *Polit. Afr.* 18, 71–87.
- Vanthemsche, G., 1994. Genèse et portée du 'plan décennal' du Congo belge (1949–1959). Brussels, Académie Royale des Sciences d'Outre-mer.
- Walker, J., 2014. *The Ends of Extraction: Diamonds, Value, and Reproduction in DR Congo*. University of Chicago unpublished Ph.D. thesis.
- Walker, J., 2017. Enclaves and states in (post)colonial Congo: spatial logics and epidemiological metaphors. In: Hunt, N.R. (Ed.), *Book Forum on 'A Nervous State'*, . < [www.somatosphere.net](http://www.somatosphere.net) > .
- Welker, M., 2014. *Enacting the Corporation. An American Mining Firm in Post-Authoritarian Indonesia*. University of California Press, Berkeley and Los Angeles.